

RECORDS OF THE PAST

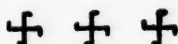
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A WALK THROUGH OSTIA

Not ever again at even shall ship sail in on the breeze,
Where the hulls of their gilded galleys came home from a hundred seas,
For the marsh plants grow in her haven, the marsh birds breed in her bay,
And a mile to the shoreless westward the water has passed away.

At Tiber Mouth, Rennell Rodd.

IT WAS a hot day in August, and Rome lay sweltering under the glaring sun. Under the circumstances, a trip to Ostia seemed like the proverbial leap from a common culinary utensil. But we had been promising ourselves to see it and our hopes had been again and again deferred until Ostia had become to us a sort of "Carcassonne." Fortunately, however, the "Servizio automobilistico della Società F.I.A.T.," which carries, twice a day, the royal mail from Rome to Castel Fusano by the sea, enabled us to realize our hopes with a certainty and swiftness undreamed of by the peasant in the poem of Gustave Nadaud.

Leaving the Piazza Venezia, we are soon speeding along the old imperial highway, the *Via Ostiensis*, which was once trodden by the countless troops that marched to Ostia to embark for conquest in distant lands, or to return for a share in some military triumph. Here and there, stretches of the old pavement and the remains of bridges can still be seen—rough memorials of a time when Rome ruled the world. Over this road Pliny the Younger must often have gone to the Laurentine villa whose charms he dwells on so fondly to his friend Gallus. "You can reach it by two roads," he says, "for both the *Via Laurentina* and the *Via Ostiensis* take you



FIG. 2. COLUMBARIUM OUTSIDE THE PORTA ROMANA

there, but you must leave the *Laurentina* at the fourteenth mile stone, and the *Ostiensis* at the eleventh" (Ep. 2.17). But as he and others of his class rode back and forth, they saw a country-side studded with villas, where we see only the undulating wastes of the Campagna and its great gaunt cattle with their spreading horns.

In an hour we are at the famous Castello which dominates the hamlet of modern Ostia (Fig. 10). This fortress, remarkable for its round bastions, harmonious lines, and excellent preservation, was built by Baccio Pontelli and Giuliano da Sangallo in 1483-1486, at the order of Cardinal della Rovere, who later became Pope Julius II. It is now used as a museum for some of the treasures recently excavated at Ostia: These treasures cannot be described here. It is enough to say that some specimens form valuable additions to the domain of Græco-Roman sculpture. This is notably true of the splendid torso of Bacchus,¹ a copy of the school of Praxiteles, the fine Venus, and the sarcophagus depicting three scenes of the myth of Meleager. The sarcophagus merits particular attention, in that it affords the best representation of the Meleager cycle known in ancient art.² According to Vaglieri,³ the first scene represents the murder of the Thestiadæ; the second, the death of Meleager, and the third, the Meleagrides at

¹ cf. Vaglieri, *Notizie degli Scavi*, 1909, p. 86, and Fig. 2, p. 87.

² cf. C. Robert, *Die Antike Sarkophagsreliefs*, III, 2, s. v. *Mel.*

³ *Notizie*, 1909, p. 87; Fig. 4, p. 88.



FIG. 3. THE WINGED VICTORY

the tomb. The whole is instinct with a fine dramatic intensity, and the modelling is exquisite. J. Carcopino, who has given an excellent appreciation of the whole, compares the mourners in the last scene to the sorrow-stricken figures painted by Giotto in the Arena at Padua.⁴

The road skirting the Castello leads one in a few minutes to the site of the ancient city, now being excavated with scientific thoroughness by Prof. Dante Vaglieri. Ostia was Rome's first colony, founded, as the Romans believed, by Ancus Martius. A settlement of some sort doubtless existed at the mouth of the Tiber from very early times. But a potsherd, showing an archaic type and treatment of the head of Athena, a collection of coins, found in 1909, and ranging in date from 254-159 B.C.,⁵ and the remains of republican walls,⁶ lead Vaglieri and Carcopino to believe that the founding of the present city can be definitely put in the first part of the III century B.C. In 266 B.C., the board known as *quaestores provinciae Ostiensis*, was appointed at Rome to safeguard her maritime interests. Of the city as it existed under the Roman republic, however, comparatively little is known. Livy tells us that its citizens served as legionaries during the Hannibalic war (27.38) and later as marines (36.3).

Among other large projects cut short by the death of Julius Caesar, was the plan for improving the harbor of Ostia.⁷ For Ostia was by no means an ideal harbor. The Tiber, then as now, annually carried down an enormous amount of alluvial deposit and the larger ships were forced to unload part of their cargo upon lighters before proceeding up the river.⁸

Claudius, in the first years of his reign,⁹ constructed a new harbor on the right bank of the Tiber about two and a half miles north of Ostia. Nero named this *Portus Augusti*, and the modern name Porto is only another witness to the persistency of Roman nomenclature. In spite of the diversion of trade caused by this change and by the further extensions of Trajan in 103, the prosperity of Ostia continued undiminished during the II and III centuries of our era. The wealth and commerce of the whole world, writes Florus (1.4), was received at Ostia as in a storehouse for Rome. But Ostia was more than a port: it was a city of pleasure, too, where refreshing breezes from the sea, as on our August day, brought delightful contrast to the heat of Rome. Many wealthy Romans had villas there. Indeed, the shore, says Pliny (Ep. 2.17) "is graced by a most charming array of continuous and detached villas which present the appearance of many cities, whether you look at them from the sea or from the shore." And men of lesser wealth, like Minucius Felix (*Octavius*, 2) and his friends (Macr. S. 7.13, 18) went there to enjoy the sea-baths in autumn.

Ostia suffered severely, again and again, during the incursions of the Visigoths in the first years of the V century and by the end of the VII

⁴ J. Carcopino, *Journal des Savants*, vol. 9, 1911, p. 456.

⁵ cf. F. Gneccchi, *La Rivista Italiana di Numismatica*, 1909, pp. 11-19; Carcopino, *Journ. d. Sav.*, 1911, p. 467.

⁶ Vaglieri, *Bullettino Comunale*, vol. 39, 1911, pp. 225-245.

⁷ cf. Plutarch, *Caes.* 58; Porphyrio, *ad. Hor. ars. poet.* 65.

⁸ Strabo, 5. 3, 5, p. 231.

⁹ Suetonius, *Claudius*, 20.

century it was practically abandoned. In 830 Gregory IV converted part of the city¹⁰ into a fortress to withstand the Saracens. Their defeat here under Leo IV has been rendered famous by Giulio Romano's representation of the battle, in the Stanza dell'Incendio in the Vatican. Under Sergius II, however, between 844-847, the citadel succumbed to the invaders.



FIG. 4. ENTRANCE TO THEATER FROM INSIDE

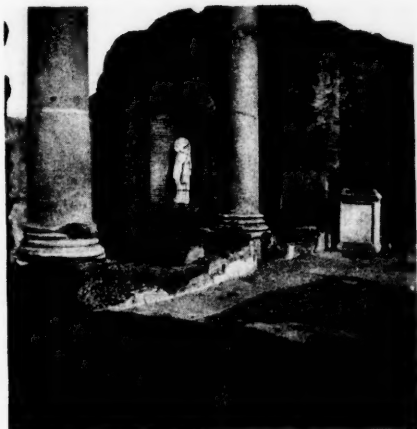


FIG. 5. NICHE IN THERMÆ



FIG. 6. A WELL-PRESERVED STREET



FIG. 7. ENTRANCE TO THE THEATER

"Ostia did not die a sudden death," Lanciani¹¹ well says, "like the Vesuvian cities; it was not taken by storm and destroyed at one stroke by barbarian hosts, like Concordia Sagittaria; it was not buried under its own pall of ruins and never disturbed in its rest; Ostia died a lingering death, by

¹⁰ The eastern part, near the Castello, according to Vaglieri; Carcopino, *Jour. d. Sav.*, 1911, p. 463, places the Gregoriopolis near the chapel of Quiriacus, farther to the west.

¹¹ *Wanderings in the Roman Campagna*, p. 56, 57.



FIG. 8. AMPHORÆ EMBEDDED IN WARE-HOUSE

starvation, inanition, consumption, decrepitude, pillaged at leisure by foreign and domestic marauders, open to all treasure-seekers, and only exposed to such ravages of nature as came from the periodical floods of the Tiber and from the growth of shrubs and trees over its mounds."

Under these conditions it might be supposed that the excavations would yield nothing of artistic value. But this is not the case. The efforts of the citizens to repel invaders called for defences, made in frantic haste, of whatever material came to hand. Then, too, the negligent attitude of the ancients toward what we today regard as works of art was doubtless responsible for the abandonment of much that is now valuable. But interesting as the finds from Ostia are, and always will be, they can never equal the wealth of Herculaneum and Pompeii, suddenly sealed up by Vesuvius.

Systematic excavations were begun in 1803 under Pope Pius VII, without revealing much of importance. They were resumed in 1854 under Pius IX and the relics discovered were placed in the Lateran museum. Under the directorship of Lanciani, 1880-1889, notable progress was made. But it has remained for Professor Vaglieri, director since 1907, to reveal ancient Ostia to the modern world. He did not, like his predecessors, aim at immediate and startling results. Instead, his aim has been to begin where they left off, to coördinate the work of previous excavators, and to proceed with scientific thoroughness. His monthly reports in the

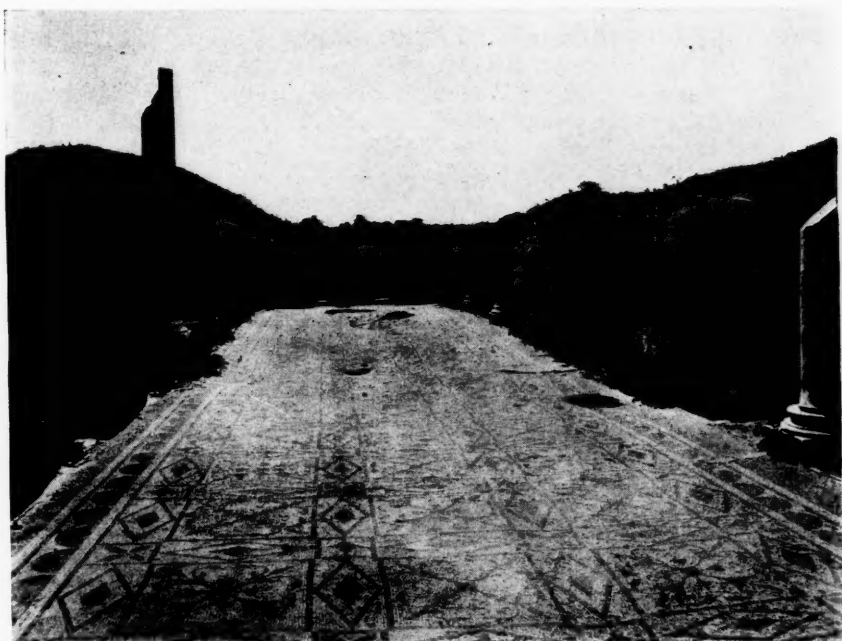


FIG. 9. THE SO-CALLED "PALAZZO IMPERIALE"

Notizie degli Scavi are models of broad and accurate scholarship. To these he has added a popular account of his work in the *Cosmopolitan Magazine* for March, 1912, pages 445-450.

Just before entering the *Porta Romana* of the ancient city, we come to the extensive necropolis (Fig. 2) excavated in part under Visconti. The familiar niches for the funerary urns attest the usual practice of cremation, and put us in mind of the Columbarium of Pomponius Hylas and similar cemeteries on the Appian Way. In ancient cities, Boissier remarks, "one reaches the homes of the living after traversing the dwellings of the dead."¹²

Immediately inside the gate, the visitor is struck by a monumental statue of a winged Victory (Fig. 3).¹³ The dignity of conception and the boldness of execution are at once apparent. The voluminous peplos, bound with a Greek girdle, falls in splendid lines which combine strength with grace, and which reveal the sure modelling of the form beneath. The influence of the best traditions of Hellenic art is unmistakable in this combination of the Nike and Parthenos types.

The main street (Fig. 13), called *decumanus*, over which the Victory stands a solitary sentry, stretches away for some 500 metres. Nothing, not even the dwellings and warehouses, recalls the busy past of Ostia so

¹² *Promenades Archéologiques*, p. 28c.

¹³ C. W. Keyes, *American Journal of Archaeology*, vol. 16, 1912, pp. 490-494, gives excellent reasons for regarding the statue as *Minerva Victrix*, rather than *Roma Victrix*, as suggested by Milani, *Notizie*, 1910, p. 229.

vividly as this wide, paved street lined with porticoes on either side. For this was the artery that transmitted life to ancient Rome. In the great solitude that hangs over Ostia today, one paces the street with mixed feelings of wonder and regret, as if one were a survivor of war and pillage and had come back to view his city as the barbarians left it.

The first street leading to the right from the *decumanus* is called the *Via dei Vigili* from the cohort of firemen (*vigiles*) who had their barracks here. Vaglieri's discovery of a large mosaic pavement a few feet beneath the street is evidence of the fact that some large building was ruthlessly sacrificed to make room for the superimposed street. The mosaic, in black and white, measures some 13 yards long and 9 wide and probably dates from the middle of the I century A.D. In the center is a space equivalent to 6 of the recurrent squares, containing 4 dolphins. Above them are representations of 4 provinces, Sicily, Africa, Egypt, and Spain; and below, of 4 winds. The whole is a quite original attempt to interpret pictorially the commercial status of Ostia.¹⁴

The well-preserved *Thermae* in the same street (Figs. 11, 6,) previously excavated in part by Lanciani, have been completely cleared by Vaglieri. The various rooms and elaborate system of heating Roman baths can now be studied to better purpose here than at Pompeii. But the most striking feature of the *Thermae* is the splendid mosaic floor in two of the rooms. In one room Amphitrite is represented riding a sea horse and in the other, Neptune surrounded by spirited Tritons. They are in the usual colors—black upon a white ground. Indeed, so uniform are these colors in Ostia and so similar the manner of execution, that Carcopino¹⁵ suggests that under Hadrian the city must have undergone extensive reconstructions and the mosaic decorations must have been the work of one school. Adjoining the *Thermae*, doubtless a part of them, is a large *palaestra* beneath which a huge reservoir has been found.

The extensive barracks of the *vigiles* have now been completely cleared. In the center is a large open court—the *atrium*—and beside it is a sort of chapel designed for the soldiers' worship of the reigning emperor. The inscribed bases at the end were occupied by busts of the emperors of the II and III centuries. The mosaic pavement, representing a sacrificial scene, is in the familiar black and white, and is well preserved. The rest of the rooms were devoted to living quarters. In many places the walls are covered with graffiti. Doubtless the perpetrators of some of them are to be found in the list of soldiers of the century of Claudius, known from an inscription discovered in the course of excavation, who were stationed here from the Ides of August to the Ides of December in 166 A.D. Altogether, the structure is a most instructive commentary on ancient military life.

Vaglieri has so thoroughly cleared this quarter that one can now pass around the barracks into the *Via della Fontana*, which takes its name from the large fountain at its western end. It is a fine old street, lined with shops like those to be seen at Pompeii. The most interesting of these is the wine-shop of a certain Fortunatus. The mosaic, besides containing

¹⁴ G. Calza has published a detailed account of the mosaic in *Bull. Com.* XL, 1912, pp. 103-112.

¹⁵ *Journal des Savants*, vol. 9, 1911, p. 451.

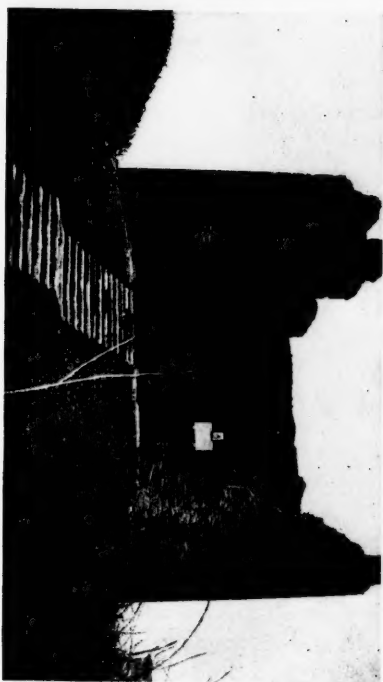


FIG. 10. THE CASTELLO
FIG. 11. ENTRANCE TO THE THERMÆ

FIG. 12. TEMPLE OF VULCAN
FIG. 13. THE DECUMANUS



FIG. 14. TONE BOACCIANA



FIG. 15. VIA DELLA FORTUNA

the owner's name, bluntly invites the thirsty to drink. Sidewalk advertising, we are reminded, is not of modern origin.

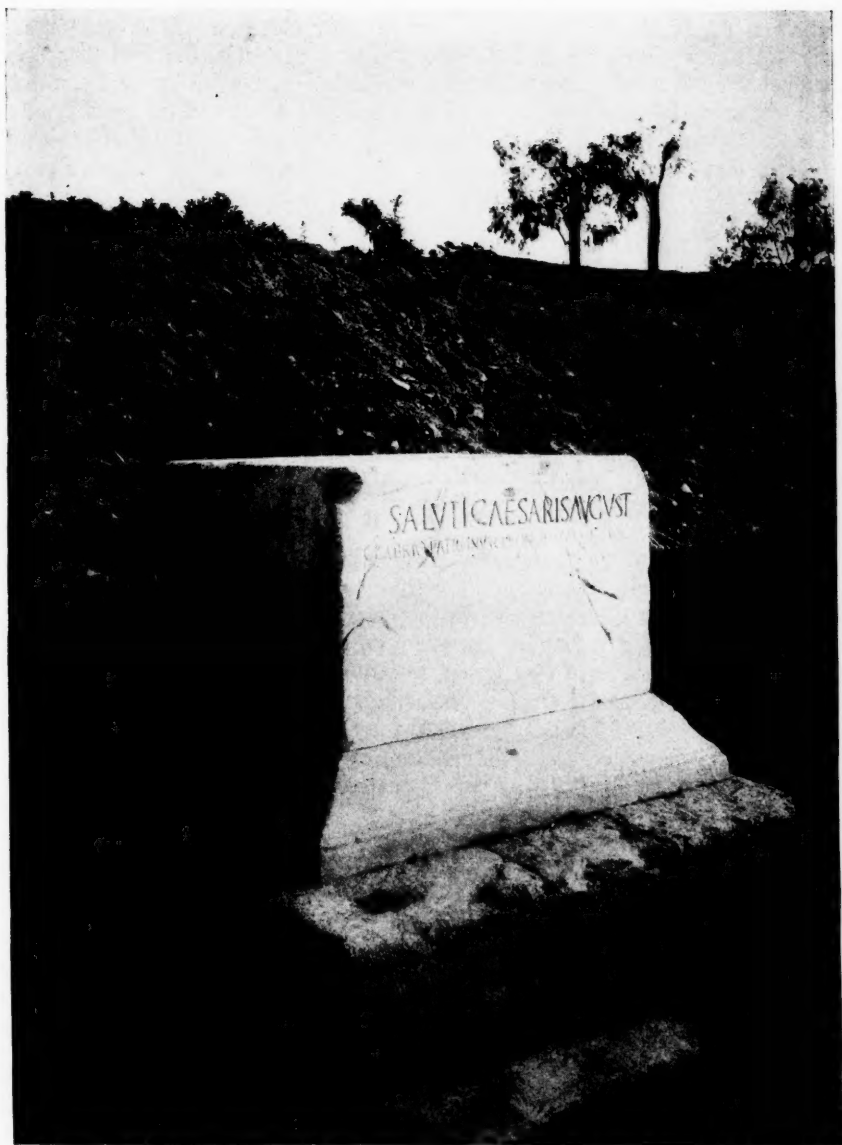
Between the *Via delle Corporazioni*, so-called from the offices of the trades-guilds, and the *Via della Fontana* lie houses with wall-paintings in the fourth Pompeiian style. The names of the various guilds can be read in the mosaics—boatmen, grain-merchants, and others. Figure 17 represents the guild of the grain-measurers—*mensores frumentarii*. An especially elaborate one reads *Naviculari Misuenses Hic*—"Here are the ship-masters of Misua."¹⁶ Beneath are 2 vessels meeting under full sail, 2 dolphins curiously wrought, 2 large fish, and something which may represent a grain measure. Now Misua was on the Eastern arm of the gulf of Carthage, and the guild bears witness to the commercial relations of the two cities.

The guilds occupy what were once the colonnades of the spacious forum, in the center of which rises the sub-structure of a temple, possibly the temple of Ceres. Overlooking the forum, immediately to the southeast, lies the theater (Figs. 1, 4, 7). An inscription records its restoration by Septimus Severus in 196-197.

A short distance from the entrance to the theater Vaglieri has discovered the ruins of a medieval church (Fig. 12) consecrated to the memory of Quiriacus, the first bishop of Ostia, 268-270 A.D.¹⁷ Among the various fragments of sculpture, all in a disorder testifying to the devastation of the Saracens, is the lid of a sarcophagus bearing the words *Hic Quiriacus Dormit*

¹⁶ *Notizie*, 1912, p. 172.

¹⁷ *Nuovo Bulletino di Archeologia Cristiana*, 1910, p. 57-62.



MARBLE PEDESTRAL NEAR PORTA ROMANA, BEARING INSCRIPTION: SALUTI
 CAESARIS AUGUST[I] GLABRIO, PATRONUS COLONIAE, D[CRETO] D[ECURIONUM]
 F[ACIUNDUM] C[URAVIT]

in Pace—"Here Quiriacus sleeps in peace." It is known that Quiriacus and his companions suffered martyrdom *ante theatrum*. The spot must certainly call up memories of the early church at Ostia, founded, perhaps, even before that of Rome. One thinks of the gentle Minucius Felix and his Christian friend Octavius, sitting by the silent sea and conversing with Cæcilius, their troubled, pagan companion, of the God who was neither Isis nor Serapis nor Mithras (Min. Fel., *Octavius*, chap. 2, 3). More solemn was the meeting of the sainted Monica and her son. "She and I stood alone," says Augustine (*Confessions* IX, 10), "leaning on a window that looked out over the garden of the house we occupied—there at Ostia by the Tiber, where, far from the crowd, we were resting from the fatigue of a long journey for our voyage. We were talking alone very pleasantly, and, forgetting those things which were behind, and reaching forth unto the things before, we were seeking, in the presence of Truth, which Thou art, what the eternal life of the saints is like, which eye hath not seen, nor ear heard, nor hath it entered the mind of man." And in ecstasy of worship, as they beheld the quiet garden and the star-strewn heavens, Augustine continued: "If the tumult of the flesh were silent in one, silent the fantasies of earth, and of waters and of air, silent the very poles of heaven, and the soul itself . . . silent all dreams and imaginary revelations, and every tongue and every sign—if they should all be silent and He alone should speak, not by them but by Himself, that we might hear His word not by tongue of men, nor voice of angels . . . and if one vision should ravish and absorb and enfold the beholder, would not this be 'enter thou into the joy of thy Lord?' And when shall that be? When shall we all rise again but not all be changed?"

Five days later Monica died of the fever, and was buried in Ostia far from Carthage, where she had wished to be. But "nothing is far to God" she said, "and I need not fear lest He should not know, at the end of the world, whence to raise me up."

To the southwest of the theater we come upon a specimen of a Roman house with an excellent mosaic pavement, baths, and a gymnasium. Nearby are the foundations of some structure of the republican period, perhaps of a temple, and a small temple to Venus, as the altar inscription shows. Just behind it is a temple of Mithras, the invincible sun. Opposite the entrance is an altar and along the sides are stone benches, with signs of the zodiac, for the worshippers. There are places for lamps and pockets to receive the blood of victims. The curious mosaic pavement contains 7 circles representing the 7 planets. The strength of the Mithras cult at Ostia is further attested by a large number of inscriptions.

To the southwest, along the river, lie the extensive ruins of the large warehouses for the grain that fed Rome.¹⁸ In one of the chambers are 30 huge amphoræ embedded in the ground (Fig. 8). Nearby is a large private house, erroneously called the Imperial Palace (Fig. 15), containing baths and a splendid hall graced with columns of cipollino. Turning back

¹⁸ For a detailed discussion of the warehouses and docks, cf. Carcopino, *Mélanges d'Arch. et Hist.*, vol. 30, 1910, pp. 397-446; vol. 31, 1911, p. 366.



FIG. 17. MOSAIC OF THE GRAIN-MEASURERS' GUILD

eastward, we proceed along one of the finest streets of the ancient city, lined with shops, which leads directly to the rear of the lofty temple of Vulcan.

This temple (Fig. 12) is a landmark on all the country-side; indeed, it is the only structure of ancient Ostia which remained above ground during the middle ages. Access is gained from the east, after the usual orientation of temples, by a long flight of marble steps. The cella, which is well preserved, is entered by a threshold made of a single block of African marble about 16 ft. long. The size and splendor of the ancient temple were no doubt in keeping with the dignity of Vulcan as the city's patron deity.

In front of the temple lies a large part of the city still awaiting excavation. To the southwest rise the remains of a XIII century castle, the Torre Boacciana (Fig. 14), so-called from the Bobacciani who were its proprietors.¹⁹ Its site marks the region where the Tiber entered the sea in Roman times. Today, the shore line lies some 3 miles away, and Ostia seems quite abandoned by the sea. And yet a new Ostia may rise as a new seaport for Rome if the project of certain engineers succeeds.

Ostia is not invested in the popular mind with the tragic glamour which belongs to Pompeii, but it is of far greater historical importance. A visit to its ruins insures a truer perspective for the appreciation of ancient Rome. In a certain sense Ostia made Rome, and such scientific excavation as Vaglieri's is adding an interesting chapter to the economic interpretation of history.

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¹⁹ cf. Carcopino, *Mélanges d'Arch. et Hist.*, vol. 30, 1910, p. 398, n. 2.



CROCODILE AND HIPPOPOTAMUS FIGURES ON THE NORTH WALL OF TOMB I
AT MARISSA

A NEW EGYPTOLOGICAL INTERPRETATION OF JOB¹

IN EVERY Oriental document the symbols and illustrations must be interpreted to harmonize with its theme and with the current usage of its age. In the book of Job, at the climax of the poem (chapters 40 and 41) we have the two creatures introduced that have so disconcerted expositors. Modern archæology has proved that in the time of Job the crocodile and hippopotamus were in contemporary religious literature constantly associated with the thought of the future world. These animals are mentioned hundreds of times in the religious texts of Egypt, and in no single instance, I think, are they mentioned because of their zoölogical importance, but always because of their demonic character. At least 6 chapters of the Book of the Dead are given up to magic texts which shall protect the deceased from the dreaded crocodile, as he fights his way through the underworld. In many other chapters the crocodile and the hippopotamus, his closest ally, are referred to when incantations are used against the foes of Osiris, and this is equally true in other ancient sacred books of the Egyptians. The male hippopotamus, which in the most ancient time was a "protector of humanity" was in the days of Job a demon. Horus succeeded in winning a resurrection life for Osiris because of the magic knowledge of the *Book of the Killing of the Hippopotamus*. In the pictures he is represented as "the devourer" at the Judgment and sometimes as Set himself. Horus is often represented strik-

¹ This article with a few slight changes and the addition of the illustrations is a section of a more extended article on *A New Interpretation of the Book of Job* by Dr. Cobern, which appeared in *The Methodist Review* for May, 1913.

ing these monsters with a spear, or putting them in chains, or standing in triumph upon them. These creatures are constantly linked together in the texts and vignettes and, with the serpent, continued to be the ordinary representatives of the powers of evil and death far into Christian times—not only in Egypt, but in Algeria, Italy, Phœnicia, Persia, Greece, and Palestine. The classical instance of this is the Metternich stele, where the god Horus, with Bes above his head, stamps on two crocodiles and grasps in his hands other emblems of the powers of darkness. In the mysteries of Isis the goddess wears at her girdle two crocodile heads, and in the Eleusinian mysteries and in those of Mithra the devouring monster of the Judgment has crocodile-hippopotami features. At the recently discovered



THE CROCODILE-GOD SEBEK BEARING THE MUMMY OF THE GOD ON HIS BACK

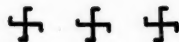
Above is Osiris in the character of Menu, the "god of the uplifted arm," and Harpokrates as they sat in the disk of the moon, from the third day of the new moon until the fifteenth day. To the left stands Isis. A bas-relief at Philae as reproduced by Budge in *Osiris and the Egyptian Resurrection*.

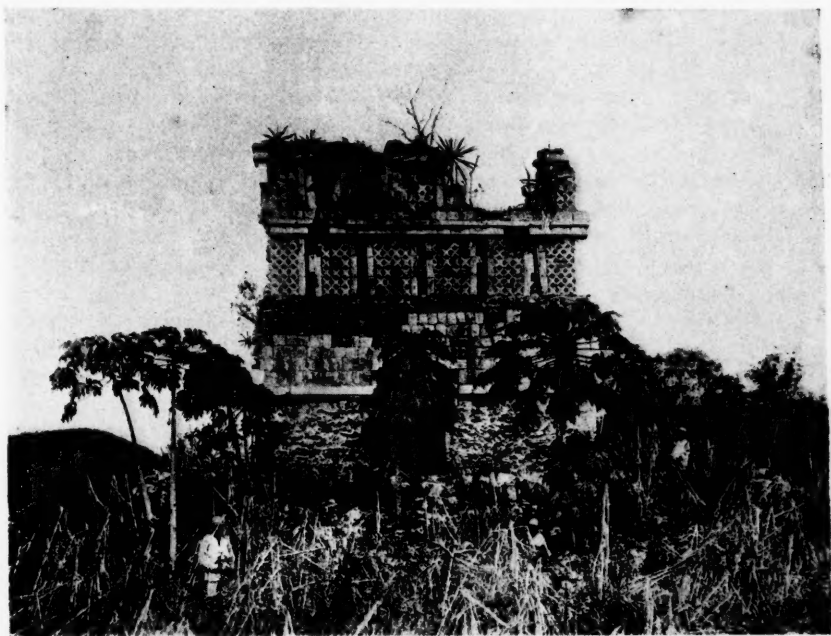
Tomb of Marissa in Palestine (*cir.* II century B.C.) the crocodile appears with the ibis on his back—the ibis being most intimately connected with the myth of the Osirian resurrection, since that god escaped from Set on its back. The crocodile and hippopotamus were representatives of Set, the god of the desert and the storm, of evil and chaos and death; they were among the most dreaded enemies of order and the resurrection life. If in this final crisis of the Job argument these creatures are to be catalogued zoologically, then not only does this ancient poem, so praised by Ruskin and Coleridge and Shakespeare, close with the most trivial and superfluous anticlimax known in literature, but, by using these well-known religious

symbols with a meaning unknown to that age, the author must have designedly confused his readers. The comments on Rahab and Leviathan in post-biblical books prove that these were not taken literally, but mythically or symbolically. (Enoch 66. 7-9, 2 Esdras 6. 49-52; LXX 9. 13; 26. 13, "apostate dragon;" 40. 14, 15, 20, etc.). Job himself in other passages undoubtedly shows his familiarity with this common usage and himself follows it (3. 8; 9. 13; 26. 12). If *behemoth* and *leviathan* are mere animals in chapters 40 and 41, this is an exception to biblical usage and to the common habit of Job himself. It is also contradicted by the express description given of these creatures. Even Adam Clark, in a far-past generation, wrote of Job's description of the crocodile, "No beast, terrestrial or aquatic, deserves the high character here given" and Nathaniel Schmidt has just said: "The hippopotamus has not a tail stiff as a cedar, does not eat its food in the mountains, and can hardly be thought of as the first of God's creatures. The crocodile does not send forth from his mouth a stream of fire, and no smoke ascends from his nostrils. The great abyss (*tehom*) is not his dwelling-place; he does not cause the ocean to seethe as a caldron and the denizens of heaven cannot be imagined to be afraid of him" (*Messages of Poets*, 205). Compare also, on the dull, sluggish, and harmless nature of the hippopotamus, Ewald *in loco*; Moffat, *Missionary Journeys*, Chapter xi. Modern natives in the Sudan drive them out of their gardens as they do obstreperous camels (compare Budge *Sudan*, i, 41). Cheyne and Gunkel were perhaps the first to definitely defend the mythical reference of these monsters to Tiamat (compare also Duhm's fine insight, *Das Buch Hiob*, p. xii); but the difficulty of reconciling the biblical description with any known Babylonian texts, and the utter failure to see any sense in such reference, if intended, make this theory impossible (see also Budde, *Das Buch Hiob*). It was not Babylon, but Egypt, which in the Job era was determining the literary style of Palestine. Even the Greek script in this era was in some instances Egyptianized. It was not Marduk and Tiamat, but Osiris and Set, whose influence was met with in every stratum during the excavations in northern and southern Palestine. The influence of the Egyptian representations of the crocodile as a symbol of evil extended all over the civilized world and can be seen in Egypt and Palestine to this day. In ancient Alexandria Christ was represented in triumph standing on a crocodile (Nerontsos, *Ancienne Alexandria*, p. 48), and in many old Coptic Cathedrals in Cairo very ancient pictures of the baptism are similarly painted, while above hundreds of Moslem doors the crocodile is hung as a demon charm.

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SMALL TEMPLE WITH FLYING FAÇADE DECORATED WITH LATTICE-WORK
PANELS AT SABACCHE, YUCATAN

A STUDY OF MAYA ART¹

THE publication of this magnificent quarto is a fair index of the interest which is still maintained in the antiquities of Central America. Beginning with D. L. Cogolludo's *Historia de Yucathan*, Madrid, 1668, to the present time the press has teemed with descriptions of the remarkable structures in Yucatan, and with theories concerning their significance and the interpretation of the symbols that are carved upon them. The best known of these works are *Incidents of Travel in Yucatan*, by J. L. Stephens; *Travels in Central America*, by E. G. Squire; *Prehistoric America*, by Marcus D. Nadillac, the reports of W. H. Holmes to the Bureau of American Ethnology, and of various explorers to the Peabody Museum.

The area occupied by the Maya Indians included Yucatan, with the adjoining states upon the peninsula, a considerable portion of Honduras,

¹ This article is a summary of the work done by Prof. Herbert J. Spinden for the Peabody Museum of American Archaeology and Ethnology, Harvard University, and is based on his Memoir published by the Museum as Volume IV of their Memoirs, under the title *A Study of Maya Art—Its Subject Matter and Historical Development*.

Guatemala, and the provinces of Chiapas and Tabasco in southern Mexico. The physical features of this region are so peculiar as to be worthy of special attention. "The Maya area, as above defined, contains three principal natural divisions. In each of these the differences in climate, in natural resources, and in topography are marked enough to have had a decided effect upon the material culture of the inhabitants. The first of these divisions comprises the peninsula of Yucatan; the second, the great central valley; the third, the Cordilleran plateau on the south and west. Since the entire region lies south of 22° , it is distinctly tropical except where the altitude counteracts, and is subject to the doldrum rains under the high sun. The duration of this summer rainy season is less in Yucatan than in the two other regions of greater land relief.

"The peninsula of Yucatan is a limestone plain of recent geological formation, with its highest ridges but a few hundred feet above the sea. It has no river valleys because, owing to the porous and soluble nature of the limestone, the drainage is subterranean. There are many caverns and sinkholes. The caverns seldom show signs of former habitation and then only as retreats. The sink-holes are often very large and form natural wells or cenotes.² These cenotes determined the location of most ancient and modern towns. Often, however, artificial reservoirs and cisterns, called chultunes, were constructed. In the southeast several large lakes occur, Lake Peten being the most important. The soil of Yucatan is shallow, and although trees grow rapidly and in dense masses they seldom attain great height. The universal building stone is limestone, which also is burned for lime.

"The wide valley plain of the meandering Usumacinta and its maze of tributary streams is a region little known and poorly mapped. It supports at present a small, roving population of wood-cutters, and a few hundred squalid Lacandone Indians, though it must formerly have been the seat of wealth and power, to judge from its ruined cities such as Yaxchilan, Piedras Negras, and Seibal. Like Yucatan, the rocks are young and calcareous. Maler is probably in error when he refers to sandstone at Piedras Negras. In the great alluvial valley stone may be had at but a few points where the hills come close to the river. Consequently many sites show now only the earthen foundation mounds from which the wooden superstructures have long since vanished. Timber is plentiful, the whole region being covered with a dense tropical forest of mahogany and other large trees. The rivers form the highways of travel. The surface of the land is marked by extensive swamps and a number of lakes; hills of moderate elevation vary the topography, and on the southern and western margin the land rises suddenly to the continental plateau.

"This plateau attains an average height above the sea of about 8000 ft., but is deeply dissected by the Chiapas, Usumacinta and Motagua river systems. The crest of the continental range lies so close to the Pacific that no large streams flow into that ocean. The plateau swings to the east round the head of the Usumacinta basin and reaches the shores of

² See RECORDS OF THE PAST, Vol. V, pp. 90-92.

Lake Izabel in long narrow spurs, while outlying ridges extend well into British Honduras. The flora of the plateau region is characterized by the oak and the pine, but much of the country is fairly open and well adapted to agriculture. These uplands formed the highway for migrations north and south, and supported a large heterogeneous population, but were apparently never the seat of such high culture as obtained in the lowlands. Copan and Quirigua are both situated on valley floors. Ledges of old blue limestone and of a soft volcanic tuff furnished an abundant supply of excellent building material at the former, while at the latter city a much harder stone of similar volcanic origin was encountered" (pp. 2, 3).

Upon the discovery of America the people occupying this area were found to be in a more advanced stage of civilization than anywhere else in America except perhaps in Peru. Sixty-two ruined cities were reported to have been found in Yucatan alone, of which Uxmal, Akè, Cavah, and Chichen Itza are best known, while Palenque in Chiapas, Coban, and Lorillard (the phantom city) in Guatemala, and Copan in Honduras are in some respects more instructive and impressive.

But the civilization of this region was in many respects limited to a notable degree. Apparently the cultivation of the land was carried on without the aid of domestic animals. They had no knowledge of the smelting of iron, their quarrying and carving having been done by stone implements; and their language was never reduced to written form in characters which represented sounds. But they did make books out of paper made from leaves and vegetable fibre "joined edge to edge and folded like a fan." On these it was endeavored to impart information by picture writing, which it is difficult if not impossible at the present time to interpret.

Of the buildings, the deserted ruins of which are found in the midst of the dense tropical woods, the greater part are very long, flat topped, and one story high, containing many rooms for the most part opening out of doors. These are doubtless private dwellings. But there were numerous buildings of more than one story, the structure of which deserves consideration. "The usual Maya method of erecting buildings of more than one story is both interesting and significant and is readily seen from elevation plans. Owing to the cumbersome construction it was ordinarily not deemed safe to put one room directly over another. . . . The principal building of Santa Rosa Xlabpak is a most interesting example of symmetry and fine construction." In the accompanying figure "are three typical cross-sections. The masses of solid masonry are shown in black. The first story is on a level with the ground. The rooms open out on all four sides of the buildings and are generally double, one chamber being behind the other. The second story covers a somewhat greater area than the solid core of the first story. The outer walls of the second range of rooms fall in some cases over the interior walls of the first. The third story faces the east and is approached by a broad flight of stairs, at the top of which stands a portal arch. The narrow winding stairway at the back also ascends to the third story. The rooms at this level are all single. Stephen calls this building 'the grandest structure that now rears its ruined head in the forests of Yucatan'" (pp. 102, 103).

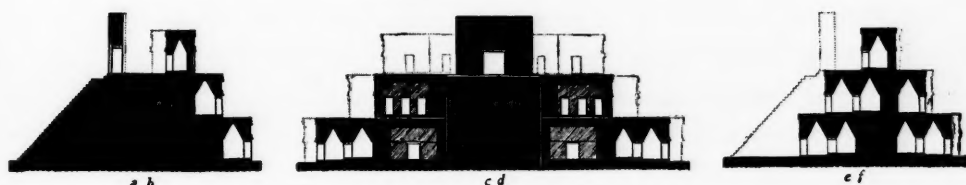
"The ordinary wall construction resembles that of the Romans. It is not true masonry, but a rough concrete faced with cut stone. The universal lime rock of the country was the material that was broken up for rubble, burned for mortar and plaster, and cut with flint chisels for surfacing stones or ornamental sculptured details. Walls made entirely of cut stone are rare.

"Perhaps the nearest approach to true stone masonry occurs at Copan. Here the rectangular blocks of fairly uniform size were laid in a neat and orderly manner. The joints were broken with fair regularity and the corner stones were laid in a simple locking system. Plate 3 shows some of the best preserved walls at Copan in which these details are readily discerned. A heavy layer of mortar was used for floors and a thin coating for walls, but this material seems to have been seldom used to cement together the building stones" (p. 107).

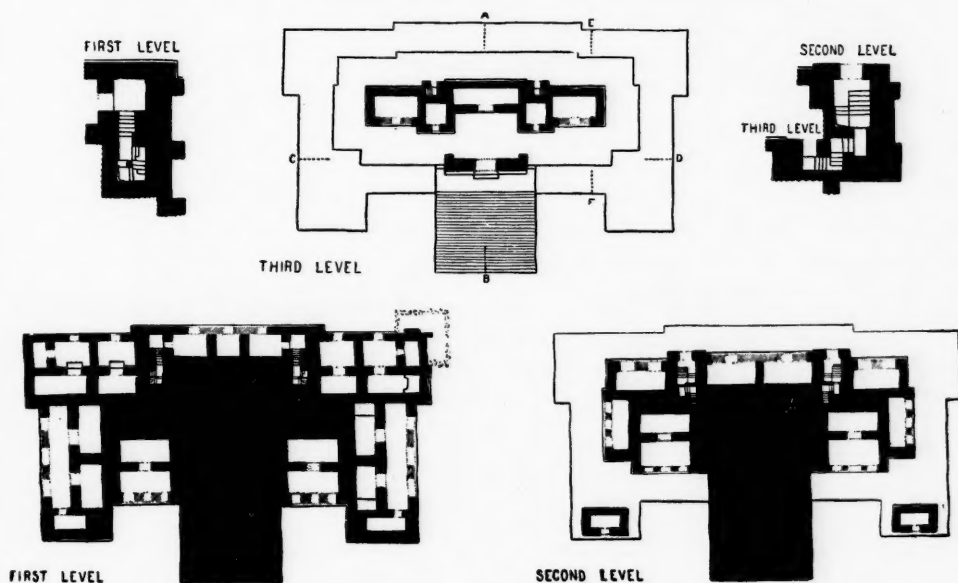
"The Maya vault has usually been described as a corbelled or false arch, built not upon the side-thrust principle of the keystone, but upon the downward thrust of a load upon over-stepping stones. The principle of such a vault was doubtless understood by the Maya builders. Plate 4, Figure 1, reproduces a photograph of a small chamber at Copan that was formerly vaulted. The long neatly cut roof stones may still be clearly made out. Such stones are long enough and broad enough to allow considerable purchase along the contact planes, and the arch of this chamber was probably of the corbelled variety. But although the corbelled arch was known and used to a slight extent, the typical Maya vault was monolithic in character through the liberal use of cement, and was intended to be so by the builders. Plate 4, Figure 2, shows an excellent natural cross section of a typical Maya vault of northern Yucatan. It will be noticed that the stones are fairly well cut on the outer surface, but that they have no purchase upon each other, since only the merest edges come in contact. The stones are held in place by the mortar of the filling and the vault is in effect monolithic. Sometimes the hearting was made exceedingly tight and resistant, but in other cases the mortar was badly mixed with earth and, after the outer coating of plaster had fallen away, the roots of trees were often able to force their way into the chinks, scale off the veneer and even disrupt the walls. But it is exceedingly doubtful if any kind of construction could have resisted better the tropical conditions of heavy rainfall and luxurious vegetation than the mortar construction we have just examined" (pp. 108, 109).

The temples or other public buildings, usually built upon raised platforms are elaborately ornamented in a variety of ways. The most common type of roof structure is known as the roof comb or roof crest. These were specially in evidence at Palenque and Uxmal. Great skill is shown in distributing the pressure of the weight so as to secure economy and sufficiency of support at the same time producing a high degree of artistic refinement.

High artistic skill was shown in the use of columns in connection with door ways; while at Chichen Itza there are hundreds of columns four or more abreast, in long alignment, whose purpose is unknown, but which are



ELEVATION: SANTA ROSA XLABPAK



GROUND-PLANS: SANTA ROSA XLABPAK

thought to have been supports for flat roofs grouped in a way to inclose a market place. Much attention was given to the cornices, which also show great refinement and variety of form.

Realistic decoration was carried to a high degree of perfection. In some cases these were executed in stucco, but ordinarily were carved in limestone, while on the interior colored designs were drawn. The serpent and the human face were specially popular forms of ornament. Masked panels exhibiting the human face in a great variety of forms were extremely common. The figures, however, were often so eliminated that they became conventional, but in other cases the corners of the building were ornamented with projecting sculptures showing great skill in design and workmanship (see p. 129).

The pottery of the Mayas shows far less skill than that displayed in the sculptured monuments. This art was more highly developed in Peru and in Mexico than in the central region. Nevertheless many of the designs portrayed on the pottery of the Mayas are intricate and effective.

It is surprising to find that jadeite, one of the hardest of stones, was sawed by the Mayas into slabs and covered with elaborate carvings. The sawing was evidently done by the use of sand and water under a cord drawn back and forth, and the carving effected by drills which used sand and water for a similar purpose.

"The early explorers and historians comment on the beautiful garments worn by the natives of Yucatan. Cogolludo says the cotton cloth of Yucatan made in various colors was traded over all of New Spain. Aguilar likewise comments on the extent of the textile industry. Much of the tribute demanded by the Spaniards was in cloth.

"The everyday dress of the men was a sort of breech cloth that passed around the hips and had end flaps hanging down in front and behind. In the ancient sculptures these apron-like flaps are often embellished. The apron with a grotesque face between two serpent heads conventionalized in the form of frets (Fig. 15) may have been purely a ceremonial elaboration possible in sculptures but not used in real life. It has, however, a remarkably wide distribution among the southern cities of the Maya area" (p. 148).

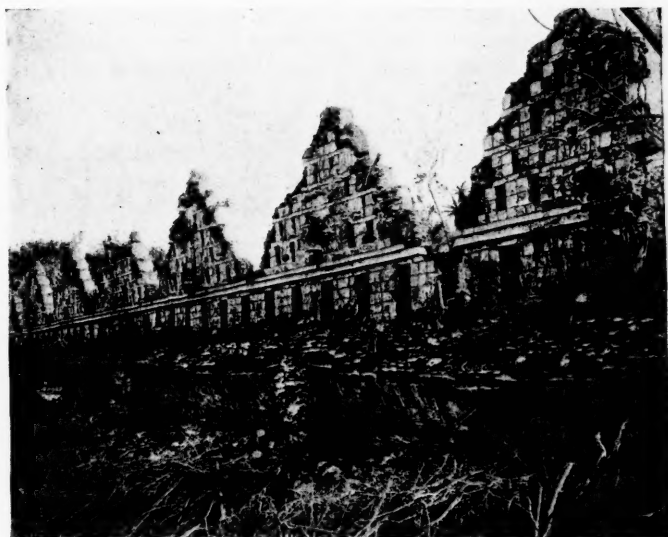
"The most elaborate textile patterns are found on a sort of blanket which usually envelopes the entire body, although in some cases it seems to have been bound around the waist so that the corners hang down on either side. Figure 207, taken from one of the lintels of Yaxchilan, represents a kneeling supplicant. The entire body of this person is enveloped in a robe having an all-over geometric decoration in squares, a rich border at the bottom and a tasseled fringe along the edge. It is possible that this dress represents the sacklike garment still worn by the Maya women" (p. 149).

CHRONOLOGY

The efforts to obtain chronological sequence from the glyphs, and from the progress in art are for the most part futile. Where the glyphs contain numbers and are found in series that express one or more dates of the Maya calendar there is no means of determining the beginning of the time from which the cycles start. The earliest date which can be fixed with any degree of certainty falls somewhere between 235 B.C. and 160 A.D., but the principles upon which this date even are fixed are very problematical. The great period of development falls between 455 A.D. and 600 A.D. At the close of this period Chichen Itza was destroyed after a period of 200 years of prosperity. Uxmal then rose to pre-eminence which it maintained till about 1200 A.D. During the next 200 years foreign warriors captured and depopulated the Mayan strongholds and left them in the condition in which they were found by the Spaniards.

The connection of Mayan culture with that of surrounding regions presents difficulties which it is impossible fully to overcome.

" . . . the ruins of Monte Alban, near Oaxaca City, seem to show fairly close affiliation with the Maya, presumably of the earlier period. At this important site there are stelæ and other large blocks of



HOUSE OF THE DOVES, SERRATED ROOF-COMB AT UXMAL

stone carved with rather crude figures of men, monkeys, and composite animals. These stones also carry columns of glyphs, which present a striking superficial resemblance to those of the Maya. The numbers are expressed in the bar and dot system. The pottery heads from Monte Alban likewise resemble Maya work. Many of the jadite amulets found there follow the southern model. Some of these were doubtless obtained in trade.

"In architecture the great use of lofty pyramids arrayed around plazas suggests connections as does the occurrence of small vaulted chambers. The small size of the rooms and the absence of columnar support may fairly be taken as good evidence of early date. The apparent absence of the ball court is also worthy of note. This structure, as we have seen, is absent from the early Maya sites, but appears at a later date in northern Yucatan and upon the highlands of Guatemala. In the Zapotecan region it is found at Quie-ngola according to the authority of Dr. Seler. We may make a supposition—subject, of course, to future proof for or against—that Monte Alban was synchronous to the first great Maya cities or slightly subsequent. It was abandoned and in ruins when the Spaniards entered the country.

"Mitla, on the other hand, apparently lasted down into the Aztec period. It was, perhaps, captured by the warlike Mexicans in 1495. The well-preserved buildings of this city, with their rich mosaic decoration in many geometric patterns, are too well known to require description. The style is peculiar and is found elsewhere only in a few nearby tombs of the cruciform type. The technique of these mosaic decorations is very close to that used on the buildings of northern Yucatan, although the subject

matter is fairly distinct. The rooms are rather wide and in one important instance stone columns were used as a supplementary roof support. The doorways are also wide, this being accomplished by the use of piers. Very little in the way of pottery has been found at Mitla. None of the elaborate Zapotecan funeral urns have been discovered in the tombs although fragments of these vessels may be picked up in the fields. Perhaps the most important criteria of age at Mitla are the remains of fresco paintings. These resemble very closely, both in style and subject matter, the finer Mexican codices. As before remarked, most of these codices were doubtless obtained in southern Mexico. At the advent of the Spaniards nearly all of this region was under the dominion of the Aztecs. The frescos of Santa Rita in British Honduras resemble in many details the frescos of Mitla" (p. 226).

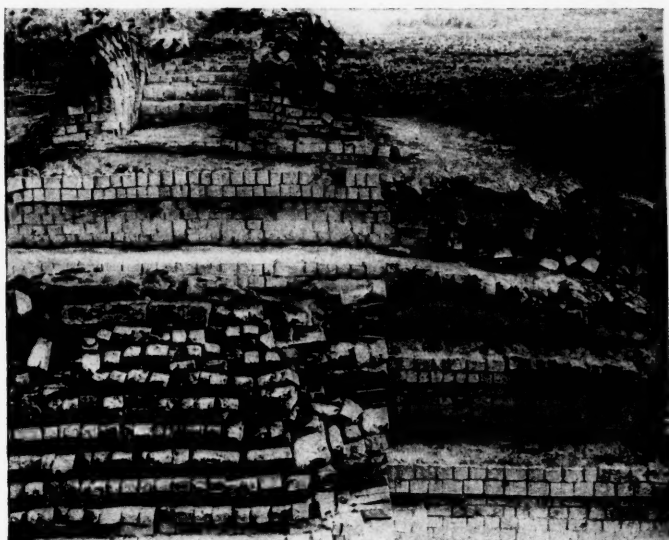
"In 1910 many figurines of a peculiar type appeared on the curio market in Mexico City. They were obtained at Atzacatzalco, a suburb of the capital, and a place famous in pre-Cortesian annals. At Atzacatzalco there are remains of several earthen mounds bearing relics of the Aztec and pre-Aztec period. From these mounds have come some of the most beautiful figurines in Mexico, representing richly attired human beings, birds, monkeys, etc. The level plain also contains relic beds which have been exposed at several points by the pits of adobe and gravel gatherers.

"The stratification of the plain is as follows: First comes a layer of alluvial soil some 4 or 5 ft. in thickness, which towards the bottom seems to be impregnated with a whitish volcanic ash. This layer contains many sharp-edged fragments of pottery, including parts of bowls, figurines, whistles, flagellets, pipes, etc. The ware runs the gamut of the different styles of paste and ornamentation found in the neighboring sites of Teotihuacan, Tezcuco and Tenochtitlan. Most of the ware is painted, some is rough and some is highly polished, and many of the vessels have tripod supports.

"Underneath the alluvial layer which contains these objects lies a thick stratum of coarse water-bearing gravel mixed with sand. In some places this gravel layer is 15 or 18 ft. in depth. Throughout this layer are found figurines and potsherds quite different in material and appearance from the relics in the upper bed. The material is a very hard terra cotta containing a large percentage of volcanic ash. The objects are nearly all waterworn and comprise figurines, disk-shaped labrets, bulbous resonator whistles, and fragments of bowls with constricted necks and globular bodies. The figurines are usually 3 or 4 in. in length. They are naively realistic and often represent nude women in sitting or standing positions with the hands upon the knees or under the breasts. Other figures represent men. The limbs are well rounded, but taper off so much that the hands and feet are much too small. The faces are characteristically long and the heads of slight depth. The eyes are often tilted, Chinese fashion, and are made by a groove across an applied nodule of clay or by one or more gougings. The headdresses are usually of the fillet type made with little rolls of clay (Fig. 267, a-c)" (pp. 227, 228).

" As for identities or similarities in ideas or artefacts between two or more culture areas, there are several possible explanations among which that of actual transmission is often the least likely.

"One group of theories aims to connect Mexico and Central America with Peru and other South American centers. A second group tries to establish a community of interest between the so-called Mound-builders of the Mississippi Valley and the Southeastern State, the ancient and present-day Pueblo Indians of the Southwest and the civilizations of Mex-



MOUND 21, SHOWING TERRACED PYRAMID WITH STAIRWAY AND CHAMBER
WITH INTERIOR STEPS COPAN

ico and Central America. The three principal lines of proof concern:

"1st. Pyramids and other features of material culture.

"2nd. Religious ideas connected with the serpent.

"3rd. Similarities in symbolism and art.

"Pyramids. The building of square-base pyramids had a notable distribution among the ancient centers of high culture both in the Old and in the New World. In the Old World, the most famous examples are the pyramids of Egypt. These pyramids were used primarily as tombs and as such seem to have been a development of the mastaba. They were built during the early dynasties and were later supplanted by other forms. The pyramids of Assyria were however intended to bear temple structures upon their flat summits. They rose in a succession of vertical steps or sloping terraces and were ascended by zigzag inclined planes or ramps and not directly by stairways. Owing to the lack of stone, Assyrian pyramids were built of sun-dried bricks. Except in the matter of stairways and

methods of construction, the pyramids of Assyria were not dissimilar from those of Mexico and Central America. Superficial resemblances might also be noted in the assemblage of rooms in the palace structures and in the marked use of inclosed courts.

"Pyramidal substructures, or at least solid interior cores in the form of the stepped pyramid, were also used by the temple builders of the Far East. Dr. Leemans has described, in an elaborate publication, the great Brahmin temple of Boro Boedoer, in the Island of Java. This temple is distinctly pyramidal in appearance. Somewhat similar temples occur in the highlands of Cambodia, and elsewhere in the Far East.

"Passing to the New World, pyramids are found in three large but detached areas: 1st, western Peru and Ecuador; 2nd, Central America and Mexico; 3rd, the Mississippi Valley and the southeastern portion of the United States.

"The pyramids of South America cover a large area, the limits of which have never been exactly determined. Throughout this area there are many important ruins which show no remains of pyramids, and the pyramid may be called a secondary phase of Peruvian culture. The pyramids are of several types. Some are natural hills which have been leveled and terraced, some are artificial mounds of sun-dried bricks or of cut stone. The pyramid of the famous Temple of the Sun at Pachacamac, near Lima, is a natural hill which has been terraced with 5 low, broad steps faced with well constructed walls. The ruins of the temple occupy the crown of the hill. At Vilcas Huaman, situated about half way between Lima and Cuzco, are remains of a Temple of the Sun, which is carefully oriented although the walls of the neighboring structures show no such alignment. The pyramid arises in three vertical steps admirably constructed of cut stones, and a stairway ascends it on the eastern side. Proceeding northwards, at Huanucoviejo are found ruins of an extensive city showing careful orientation throughout. The principal temple is marked by a well made platform mound having a broad stairway. The so-called Fort of Huinchuz, in the region of Pomabamba, is really a temple structure. The substructure is not a rectangular pyramid, but a terraced and truncated cone rising in six steps. The great pyramid of Moche, near Trujillo, resembles in plan many of the substructures of Central America. Attached to the base of the pyramid are extensive platform mounds. But the method of construction discloses differences. The pyramid is built of sun-dried bricks arranged in tiers that incline inwards. The structure upon the summit of the pyramid and upon the subjoined platforms have all disappeared. At Coyor, or Incatambo, near Cajamarca in northwestern Peru, there is an oval dome-shaped outcropping of granite, the natural place of refuge in a valley subject to floods. This elevation shows 9 concentric artificial terraces. Upon these terraces houses were constructed, and upon the summit a tower-like temple structure was built. There is a lack of references to pyramids in the Calchaqui area and in the southern provinces of the ancient Peruvian empire. No plans or descriptions of pyramids in Ecuador are at hand, but such remains are said to extend well into this county, and may even cross the southern boundary of Colombia.



CROSS-SECTION THROUGH TWO CHAMBERS OF THE TEMPLE AT LABNA

"In other phases of material culture there are but few striking similarities between Peru and Central America. Architecture is very different in the two areas. Metal working, weaving and pottery making, all of which reached a high plane of development in both localities, are sharply distinguishable as regards the technical processes involved and the appearances of the products. The religious and the social organization of Peru is unlike that of the Maya in most respects, and there is evidence that its development was autochthonous and extended over many centuries. The Peruvians had no system of hieroglyphic writing and no carefully elaborated calendar. Certain features of graphic art will be considered separately, but in general this too was peculiar and characteristic of the region" (pp. 232-234).

"The Mound Area of the United States shows several distinct types of mounds and earthworks. Some of the types have a pretty definite limitation to certain parts of the field. Thus nearly all of the effigy mounds lie within the limits of the State of Wisconsin. To be sure, the famous Serpent Mound is situated in Ohio, but this mound falls in a type by itself. The complicated geometric inclosures, perhaps the most remarkable of all mound remains in the entire area, seem limited to the State of Ohio. Burial mounds, of one type or another, occur over the entire area. Pyramidal mounds likewise have a wide distribution and are common in eastern Missouri and Arkansas and in all the Gulf States with the noteworthy exception of Texas" (pp. 234-235).

"A stretch of a thousand miles by the nearest land route separates the southwestern outposts of the Mound Area of the United States and the northeastern point of occurrence of pyramids in Mexico. In all this in-

tervening area there is no record of any culture higher than that of the Athapascan Lipan and the mysterious Jumano. The Indians of Texas and of southern Chihuahua are reported to have been completely nomadic and much given to savage warfare" (p. 235).

"The serpent, usually modified by certain unnatural additions, is seen in art over a great portion of North and South America, as well as in the Old World. In mythology it may be found with similar unnatural features among nearly all the Indian tribes of the United States even where no drawings of it are made. Thus Goddard gives myths of the Indians of northern California concerning a horned snake. A similar monster, possessing antlers and sometimes wings, is also very common in Algonkin and Iroquois legends although rare in art" (p. 237).

The author places little reliance "upon the presence of similar geometric motives to show connection between two regions when the bond is not strongly indicated by other features. The scroll, the fret, the guilloche, the swastika, the stepped pyramid, etc., occur among practically all the high cultures of the world. They form either singly or in combination the universal basis for conventionalization. In many cases they were originally developed through suggestions furnished by the structural limitations of basketry and weaving and were later transferred to other arts.

"Realistic art may show relationships between two cultures principally through peculiarities in representation such as mutual deviations from the normal form of the object represented. Similarities in conventionalized art are much more significant than those of purely realistic art, but even here it is not safe to assume that they indicate transmission of ideas from one region to another. Conventionalized art is made by the amalgamation of geometric and realistic motives and since both of these original factors are liable to be the same in two areas, and since the controlling technique, as in textiles, is apt to impose the same restrictions to growth, it follows that similarities may be extended to the two independent products. Since the idealistic modification of natural forms is based upon more or less constant methods of imaginative reconstruction it must be evident that similarities in this phase of art are not necessarily proof of contact.

"The examples of representative art which have been most frequently taken to show cultural affiliations in the New World are those which present the modified serpent which has already been discussed. Here again we will cast a quick glance over analogous subjects in Old World art. The reason these foreign analogies are given is to vitiate the apparent importance of the similarities in New World art. If the facts submitted prove anything they prove too much. Everyone is willing to admit the basic physical and psychical unity of man but few will admit the cultural unity.

"Many of the ancient temples of India, Burmah, Java, Cambodia, etc., show a high development of the serpent in architectural embellishment. There are great diversity of treatment and a few rather close parallels to Maya art. As a rule the snake body is a simple winding motive completely overlaid by arabesque designs. The idealism does not seem to have led to even partial anthropomorphism although this is clearly

shown in the case of the elephant. The hooded cobra is the snake most frequently represented and the single body often ends in a number of heads in accordance with the East Indian method of multiplying arms, legs, and heads upon the bodies of divinities. The Chinese dragon has a composite origin to which the serpent contributes. The closest parallel to Maya art in the ideal development of the serpent is seen in Egypt. Representations of winged serpents occur in connection with a number of the Egyptian deities such as the Goddess Mersokan and the Goddess Ranne" (pp. 238, 239).

"The elaboration of the serpent in religion and religious art, leading to certain identities in peculiar and unnatural features, has proved to be



SMALL VAULTED CHAMBER SHOWING NICHES, SHELVES AND ROOFING
STONES COPAN

one of the most important phenomena of the native culture of the New World—and the Old World too, for that matter. In some of the principal culture areas the development seems to have been entirely independent and indigenous. Elsewhere there may have been an actual connection, often of the most flimsy sort, and entirely unimportant as concerns the larger questions of cultural evolution. For instance, these similar art products may, in some cases be explained by a recrudescence of ideas transmitted by mythology. Word of mouth travels faster and farther than craft of hand.

"Still we may see in these designs the result of a slow exfiltration, with many relays, of ideas originating among the Maya, if you will, but not passing from them directly to the ancient peoples of the Mississippi Valley.

There are no trustworthy evidences of trade relations between the Mexicans and Mound-builders, nor is there any sure indication of fundamental unity of culture at any time in the distant past" (p. 247).

One of the strangest facts about the ancient land of the Mayas has recently been called to attention by Dr. Ellsworth Huntington. It is this: At present the whole district possesses a climate so warm, moist and debilitating that it is almost the worst place on the globe for human habitation. The ruins of the ancient cities, instead of lying amid deserts and under a burning sun, as happens with most of the abandoned capitals of the east, are so overgrown with tangled vegetation and enveloped in fever-stricken swamps that some of them are nearly unapproachable.

The conclusion is that within the past 2000 years a vast change of climate has occurred in that part of America, and that in the days of Mayan civilization the earth's climatic zones were shifted in such a manner that the land occupied by these remarkable people enjoyed very different atmospheric conditions from those that prevail there now. Peten, one of their most important cities, which has not yet been well explored on account of the difficulties of approach, lies in the midst of a region which is at present very sparsely peopled, and where it would be impossible to cultivate the land as it was cultivated in the days of the Mayas.

Only by such a supposition, it is thought, can a rational explanation be found for the fact that the highest native civilization that this continent had developed before the white man came was centered about a location which is now a deadened and almost uninhabitable wilderness.

We know that the Indians of Mexico and Central America developed an autochthonous culture of a high type. We know that in point of time this culture cannot boast a sensational antiquity or even one which will bear comparison with that in classic lands or in the Far East. We know, in a general way, the course of empire; the epochs of brilliancy and decadence. And we know the end of it all, very much as the priest or Balam sang it in one of the scanty fragments of Maya poetry.³

Eat, eat, while there is bread.
 Drink, drink, while there is water,
 A day comes when dust shall darken the air,
 When a blight shall wither the land,
 When a cloud shall arise,
 When a mountain shall be lifted up,
 When a strong man shall seize the city,
 When ruin shall fall upon all things,
 When the tender leaf shall be destroyed,
 When eyes shall be closed in death;
 When there shall be three signs on a tree,
 Father, son and grandson hanging dead on the same tree;
 When the battle flag shall be raised,
 And the people scattered abroad in the forest.

³ Brinton, 1890, p. 303.



TARENYAGON

TARENYAGON—"Holder of the Heavens," according to David Cusick, the Tuscarora—or "Coming from Heaven," as Brinton translates the Onondaga term—is the title applied to the supreme deity of the Iroquois. The *Handbook of American Indians*, giving the Mohawk form, Teharonhiawagon, explains its meaning as, "He is holding the sky in two places."

The story of his celestial life, his identification with Ioskeha, the "Good Mind" that held continual battle with the "Bad Mind," Tawiskaron, and his creation of the world, are all familiar subjects.

An interesting though brief account of the Iroquois is to be found in the "Report of the Committee on Indian Affairs, in Relation to the Petitions of the St. Regis and Onondaga Tribes of Indians, as to their Annuities and Leases," printed as New York Assembly Document, No. 202, April 18, 1870, which gives the following with regard to the Confederation of the Five Nations:

"*Taren-Wago*, a sachem of the Onondaga tribe, was the inspiration and prime mover in making the confederation. He is represented as a man of great skill and of powerful oratorical powers; he was known among the tribes as a great medicine man, and a person who held converse with the Maito-Mainto, or the Great Spirit. At his suggestion the tribes were to meet on a certain day at the foot of Onondaga Lake, for the purpose of entering into the confederation. The great chief absented himself after the order had been given for the meeting of the tribes, and it was supposed that he was holding converse with the Great Spirit. The tribes met on the appointed day, but the great chief, who was to direct and give counsel, was not present. Dismay was depicted upon the countenances of the warriors assembled, and it was surmised that the Great Spirit had taken him away. Time moved on, until late in the day, when a boat was seen gliding swiftly down the lake until it reached the landing, when the shout went up 'Taren Wago has come!' He stepped from the boat to the shore and was caught up and borne to the camp, and thus addressed the council:

"My friends and brothers, you are members of many tribes; you represent many lodges and many council fires. You come from the east, the rising sun—from the setting sun, and from the great waters north. We meet for common protection; by uniting in a common bond of brotherhood we may triumph; we must make this union upon the rock. Let this be done and we shall drive the enemy from the hunting grounds.

"You (the Mohawks) who sit under the shadow of the great tree, whose roots sink deep in the earth, and whose branches spread wide to catch the breeze and protect the eagle, shall be the first nation, because you are great in war and have mighty courage.

"You (the Oneidas) who come from the 'Everlasting Stone,' where the council fires have been lighted for ages, giving token to other tribes of your knowledge and prowess—always giving wise council—you shall be the second nation.

"'You (the Onondagas) who have your habitation at the foot of the 'Great Hills,' and are overshadowed by their craggs, shall be the third nation, because you are gifted in speech, and do move the tribes to act on the warpath and in the battle.

"'You (of the Senecas) whose dwelling is in the dark forest, and whose home is everywhere, shall be the fourth nation, for you are strong in the fight, and great; cunning in the hunt, bringing much meat to the lodges.

"'You (Cayugas) the people who live in the open country and have much wisdom, shall be the fifth nation, because you are skilled in the art of corn-raising, and beans, and making houses, and have great wisdom.

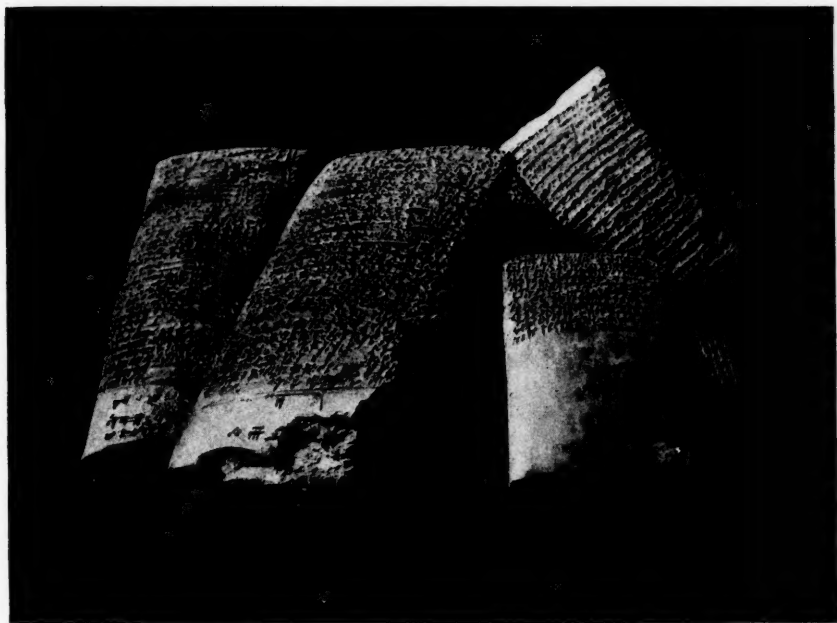
"'Brothers, if we unite in this great bond, we shall have one common interest. You, who are now like the feeble bushes, will grow strong like the tall pines. You, who are the fishermen, will be swift in the boat, and go to many waters. You, who go to war, will be strong in many warriors. You will all be free as the wind, and no tribe can compete with you. The Great Spirit will smile upon us. You must bury in one great council-fire all of your petty strifes, for the common good. Brethren, now is the time to make this bond. If we remain as we are, we shall be scattered and broken in spirit; we shall perish under the war-stone; our name will no longer be remembered or repeated in the dance or war song, and our hunting grounds be taken and pillaged, and our mothers and children be conveyed away. Brothers, these are the words of Taren-Wago. I have talked; I am done; farewell.' Upon which he stepped into his boat and disappeared.

"The Council then adjourned to partake of a great feast that had been prepared for the occasion. The next day the tribes assembled in council. The matrons of the different tribes were invited to be present at the council and assist in the deliberations, and by a vote of the council were clothed with diplomatic power in the deliberations of the confederation in making war or peace."

GRACE ELLIS TAFT.

New York City.





SUMERIAN LITURGIES FROM THE LIBRARY OF LARSA (BIBLICAL ELLASAR) IN
THE YALE BABYLONIAN COLLECTION

BABYLONIAN LITURGIES

UNTIL recently Assyriologists have given little attention to the important branch of Cuneiform literature which is designated by the title of this essay. It was naturally to be inferred that a religion so highly developed, as the Sumero-Babylonian, possessed a considerable corpus of temple liturgies. From the earliest historical period to the last century before our era we find in each city a temple whose cult was devoted to the worship of some local god, whose sphere was theologically defined and rarely transgressed upon that of other divinities. And in the larger temples, chapels were provided for the cults of important gods whose chief temples stood in distant cities. When we consider the vast population of Sumer, Accad, Assyria and adjacent lands which adopted more or less this religion, remembering too that the spiritual psychology of these peoples tended always toward a refined ritualism in their public services, we must expect to discover chants, responsions, refrains and intercessions. Unfortunately this more formal and spiritual part of Babylonian religion attracted no particular attention until very recently. The historians of Babylonia were attracted in the first instance by the magical forms of worship, the sacramental rituals of the wizard

priests who healed the sick, cast out devils and pacified the troubled conscience of sinners. Semitic scholars working in cognate subjects have found Babylonian influence of this kind in Syria, Palestine, Arabia, Egypt and not a little in Greece and Rome. This has added to the earlier impressions of the Assyriologists themselves that the Babylonian religion was chiefly characterized by magic and all the rituals which accompany a cult of this type.

The earlier excavations at Nineveh which resulted in the discovery of the library of Asurbanipal gave us the fundamental material upon which the science of Assyriology has been reared. Babylonian and Assyrian religion has been largely estimated from these sources. And the proportion of liturgical material discovered in this famous collection was insignificant compared with the long series of incantations, penitential prayers, divination series and all that belongs to the magical type of religion. In the original text edition of the British Museum, commonly known as I, II, III, IV, and V Rawlinson, only 3 important tablets belonging to the daily liturgies were published and these remained untranslated until 1909. In the meantime about 1890 the Berlin Museum purchased a collection of several hundred tablets from dealers. These appear to have been partly stolen from the French expedition at Telloh, the ancient Sumerian city Lagash and partly excavated by Arabs without firman at Babylon. The Berlin collection obtained only ordinary Sumerian contracts from the plunder of Telloh, but the irregular excavations of the Arabs appear to have uncovered the remains of a cloister of liturgists and musicians at Babylon. George Reisner published these liturgical texts in 1896 with a penetrating introduction. Doubtlessly Reisner understood in a general way the meaning of these long public services of which he copied 148 large plates and also gave one tablet or book of a duplicate Assyrian daily service. These texts like those in Rawlinson remained unstudied and untranslated for 13 years until an edition of most of them appeared in 1909. It is true that Jastrow had already been attracted by the importance of these texts and had discovered their liturgical character for he translated passages from Reisner's texts in his *History of Babylonian Religion*, where he is still under the impression that they belong to the corpus of private worship. Zimmern assigned certain of these liturgies forming a series sung in the public worship of Ishtar to Miss Hussey for a doctor's dissertation, but in my judgment their real importance was not understood. Last year (1912) I published all the liturgical fragments which could be found in the Asurbanipal library but have since discovered more in an uncatalogued collection.

The excavations at Nippur have shifted the subject to an earlier period and show that the long litanies of Babylonia and Assyria were evolved from Sumerian temple services of a remote age. Radau was the first to publish specimens of this kind of ancient literature which was so successfully cultivated by the schoolmen of Nippur and he attempted to translate them with some measure of success. Some years ago the British Museum purchased several well preserved Sumerian tablets and caused them to be published in their official publication in 1902. These were

undoubtedly stolen from the Expedition of the University of Pennsylvania and really belong to the great scholastic library of Nippur. Not until 1909 did these texts receive any adequate treatment but since then they have become the foundation for the study of liturgical origins.

It is becoming increasingly evident that magic and private devotion are not the important factors in the origin of Sumero-Babylonian religion. As we progress in the interpretation of Sumerian texts the religious services written for public worship form the principal material. Incantations do exist in this early period. I found several large magical tablets of this kind in Constantinople and a few in Philadelphia. The collection from Tellah, has also yielded a few. But those thoroughly acquainted with the early Sumerian material agree in the opinion that the Sumerian religion in the historical period to the last days of the vitality of that people was remarkably rich in forms of religious worship which were wholly free from magic. With the Semitic domination began that aggressive movement of the magicians and sacramentarians which permeated the popular cults. But at no period in Sumero-Babylonian history do the purer forms of public worship appear to have lost their popularity. They were chanted at Nineveh by the priests of Sargon and Asurbanipal, at Babylon by the choirs of Nebuchadrezzar and are known to have been studied at Babylon as late as the year 70 B.C.

The Babylonians and Assyrians invariably chanted these choral compositions in the Sumerian language. The prayer books of the late period add an occasional interlinear version in Semitic but there can be no doubt but that the Semitic priests said these services in the ancient tongue. And this is one reason why this body of literature has been neglected and misunderstood. So far as these services had a Semitic version we made some progress in their interpretation, but the early school of Nippur whose work forms our principal source for studying the origin of public worship wrote in classical Sumerian. They probably knew no Semitic themselves. The later Semitic choristers learned Sumerian and wrote in that language. Obviously progress in the interpretation of these texts could not be made until this language was mastered and its decipherment is only now an accomplished fact. Had George Reisner not been side tracked into Egyptology 17 years ago I dare say that Babylonian religion would not have been disproportionately interpreted until now. The struggle to master this apparently insolvable linguistic problem is one which would be more fittingly told by some later historian. Suffice it to say that Thureau Danguin's masterly work on historical inscriptions was soon followed by the work of others upon the liturgical texts, a work which has placed Babylonian culture in a new light.

Sumerian culture reached its zenith in the III millennium B.C. Before 3000 the theological system had received its final form, being changed by the Semites in later ages in details only. We have material from two important centers, Lagash excavated by the French and Nippur excavated by the University of Pennsylvania. Valuable material is gradually finding its way into our museums from other sites, notably Kes Erech and Larsa. But Nippur appears to have possessed an especially important

school of liturgists. The texts from these archives reflect a scholarly and ancient ritualistic surrounding. Every important deity in the pantheon seems to have had a temple here or at least a chapel in the great city temple of Enlil. In the age of the dynasty of Ur the foreign offerings to these cults became so great that a small town was founded 4 miles from the city as a sort of clearing house for the temples of Nippur. We cannot be in error in assuming that the choristers and liturgists of this school influenced the form of public worship throughout Sumer and consequently of all succeeding ages.

Before speaking of the deeper moral and philosophic aspects of these liturgies I shall outline rapidly the literary forms through which they passed. In Sumer, and I speak now only of this people, liturgical compositions designed to express in public worship the inherent humility and sorrow of mankind antedates all forms of magic and individual forms of worship. And if this people ever employed hymns of joyful expression, lyrics and ballads these have well-nigh disappeared. None have survived later than the XXII century B.C., and only a few are known. A note of profound sorrow; a weariness of sin, pervades the hymns of Nippur and characterize this religion to the end. The earliest compositions known to us are written upon single column tablets and addressed to a single god. The opening line appears to have been accompanied by a musical motif which characterizes the whole hymn. These first lines are generally based upon the dactyl, as *éturgim miginam ságabi áseir*, "Like a sheep fold harassed her heart laments." From the earliest period these chants were accompanied by trained singers and musicians, the flute being the instrument first employed. It is probable that the most primitive compositions were sung in the same musical pitch accompanied by bowing and prostration but as the services lengthened, refrains began to appear and when the refrain changes we may be sure that the musical score changed, thus giving variety to the service. For example a short liturgy of the early period sung in the chapel of Enlil at Nippur begins *ní-tuk niginu úruzu údedug*, "Oh, honored one, repent and behold thy city." For 18 lines the refrain *úruzu údedug* recurs, and later a section marked by the refrain *mínibbi*. This composition is known to have been incorporated into the services of the cults of Ur and Larsa where it was probably sung in the chapels of Enlil built in the temples of the Moon god and the Sun god.

The clerics once having made a beginning in this matter rapidly evolved a very complicated song service. Some of the tablets of Nippur run into 6 columns and contain as many as 200 lines. The Berlin Museum possesses the longest liturgies of the early period, some of them having 20 or more movements and as many as 400 lines. These priests adopted a very simple method for producing their long services by stringing together several old hymns, separating them by lines drawn across the columns of the tablets. In most cases they made excerpts only. Of course only such hymns could be chosen as belonged to the canonical services of a single god. For example an involved liturgy to the Sun god would be built up by arranging several old hymns to this god. In no case would it be permissible to insert a hymn to any other deity. The really productive

age of hymnology is the period in which these melodious and mournful hymns were written, that is before 2300 B.C. From that time onward the temple schools of Sumer and the later schools of Babylonia and Assyria show no originality. A type of scholasticism was soon precipitated and devoted itself to sacred music and liturgical forms. Doubtlessly choral work was highly developed and eunuchs employed in the temple choirs. The musical instruments were combined into the orchestra, whereas in the early period a combination of wind and string instruments was not permissible.

For this reason certain of the hymns of the cloister library of Nippur are written for wind instruments and others for string instruments. The flute and the lyre are typical of these two classes and in the early period wind instruments were the more popular. It is difficult to say when these were combined, probably during the Isin dynasty. Some time during the dark ages between Hammurabi and the revival of learning in the age of Asarhaddon the liturgists of Assyria and Babylonia perfected the long liturgies by adding a recessional, after the service. In this final section only the flute appears to have been used to accompany the singing, whereas the full orchestra appears to have been used during the main service.

It was in the cloisters of such great temples as Esagila of Babylon, Ebarra of Sippar, Eanna of Erech in the last millennium B.C. that the Semites completed that perfect system of canonical liturgy which probably influenced the church services in both Judaism and Christianity. A musical and liturgical school, dedicated to Enmesarra whose symbol was the bull, is known to have conducted the daily services at Babylon for several centuries B.C. and to have edited the corpus of Sumero-Babylonian liturgy. At Nineveh the British excavators found a huge four column tablet containing the first lines of all the liturgies in a certain section of the Asurbanipal library. This catalogue enumerates about 60 of these series, but many others exist. It may well be that in the late period the Babylonians had a different liturgy for every day in the year. Each of these contains ordinarily 600 to 700 lines divided into 20 or more melodies with recessional. If this estimate be anywhere near the truth you will readily understand the immensity of this subject. Unfortunately few of these have survived in their entirety. The schools adopted different methods in their editions. At Babylon it became customary to edit each service on 6 tablets, indicating their consecution by catch lines. We have the entire 6 tablets for one of the Enlil liturgies and also for one of the mother goddess liturgies. Sections of nearly a hundred other services are known. The scholars of the late Sumerian period adopted the rule of editing an entire service on one huge tablet, but these have been almost invariably mutilated in the ruins of the libraries. At Nineveh the scribes employed the three tablet system. A very early method of editing these services and one which must have been convenient for the reader consisted in writing the service upon a square prism about 10 in. high by 4 in. in width. This clay or terra cotta prism was pierced from top to bottom at the centre by a small hole large enough to admit a spindle of considerable strength. I suppose that the priest placed this on an altar or desk and revolved it as



BABYLONIAN HYMN FROM THE LIBRARY OF LARSA (BIBLICAL ELLASAR) IN
THE YALE BABYLONIAN COLLECTION

he read the service. But such a device would be of no use to a choir. I dare say both priest and choir recited from memory. Certainly it is not reasonable to suppose that any human being could have read these texts, composed in signs capable of several interpretations and pronunciations, so rapidly as would have been required in a public service. Of course the strain upon the memory must have been great even for one service, not to include the numerous series of which the canon was composed.

The Babylonians had the same reverence for this body of literature as had the Jews of the late period for the canon of the Old Testament, and as Orthodox Christians have for the Bible. Learned comments upon its text occur and the melodies were too sacred for profane utterance. Only the priests and singers who belonged to the temple school possessed the divine prerogative of reciting these services. If the Babylonians had a doctrine of verbal inspiration it was concerning these texts. And if they

had any body of sacred doctrine it was these liturgies. The scribes of Babylonia knew the literary and historical origins of these composite texts, some of which were already 3000 years old in the period of the Jewish Exile. Unlike the Jews of the post-Exilic period they could not surround the origin of their sacred books with the halo of mystery. But the doctrines of their beliefs are all set forth here and they certainly distinguished between this and profane literature.

The Assyriologists have generally underestimated the value of these texts for theological purposes. For example suppose we wish to define the Sumero-Babylonian doctrine concerning the attributes of the god *Ninib*, patron of Lagash, and the god of war. The liturgies of the cult of *Ninib* certainly reveal the orthodox beliefs concerning this god better than any number of references which we might gather from historical and magic texts.

So far as I know the important doctrine concerning the "Word" of the gods exists only in these services. In the recitation of these passages we have surely the confession of a popular belief in the existence of a spirit-logos, messenger of divine power, ruling all created things. Their conception of the divine word was, it is true, only that of a destructive spirit sent forth by an angered god to wreak vengeance upon a sinful people. Thus a daily litany to Enlil begins,

It like the storm is created, its secret none knoweth,
His word like the storm is created, its secret none knoweth.
The word which stills the heavens on high,
The word which causes the earth beneath to shudder.
The word which brings woe to the Earth-Spirits.
His word has no seer, no prophet has it.
His word is an on rushing deluge which none can oppose.
Mother and daughter like a reed-mat it rends asunder.
His word rends the huge *oak*-trees.
The spirit-word reduces all things to its sway
When the word of Enlil wanders forth eye beholds it not.

Here ends the first melody or passage of the service. An interlude is marked by a line across the tablet. The second passage in another measure begins with the weird refrain,

ú-ae-némmani ú-ae-némmani
"Majestic is his word, Majestic is his word."

The sorrows of humanity are ordinarily attributed to this divine agent and particularly characterize the suffering mother litanies which I shall shortly discuss. These passages of the service are written with refrains obviously composed for doleful sounds. For example a liturgy of the cult of the storm-god Adad known in the corpus as the series "*úddamgu-déde-ás*," "Like a storm he calls," opens with the refrain *unanam inganam*. I cannot see, however, that this doctrine of the word had any far reaching effect upon the later history of religion. In some respects it corresponds closely to the prophetic use of the word *דָּבָר* in Hebrew but the two can scarcely be compared. The Babylonian doctrine is of Sumerian origin

and does not include any element of revelation of the divine will. There are several passages in the Arbela oracles of the Assyrian period which are clearly connected with the *d'bhar Yahweh* style of Hebrew prophecy but these are of Semitic origin, local in scope and do not belong to the canonical literature.

The doctrine of these services which seem to have most appealed to the congregations and believers of all ages is that of the sorrowful mother and her dying son. The liturgies which celebrate the death of the divine child, the wailing of his divine mother, her descent to Hades and return bearing her child in her bosom belong to the so-called cycle of Tammuz litanies and were sung only at the Tammuz festival in midsummer. At least such is the supposition of most scholars and I dare say we may safely concur in this belief. This cult of the dying god has been thoroughly discussed by others, in so far as it existed in Egypt, Phœnicia, Phrygia, Greece and Rome, and has been preliminarily discussed in Babylonia by Zimmern and myself. Since these mid-summer services do not form a part of the ordinary daily liturgies I shall say no more about them, and all the more since a volume on this subject will soon be issued from the Oxford Press. I shall on the other hand draw attention to the fact that this doctrine of vicarious suffering on the part of a mother goddess is based on a cardinal belief of the Sumerians and Babylonians, and is set forth in a large number of liturgies. In fact nearly all of these doleful compositions of cults other than that of the mother goddess bring in passages which represent her bewailing the suffering of humanity, and esteeming their troubles as her own. As you know in the intricate system of Babylonian theology borrowed from the Sumerians the original mother goddess divided into many forms, both married and unmarried. Both types are used in setting forth this doctrine. In the daily liturgies the married goddess *Gula* of Isin or *Bau* of Lagash ordinarily appears as the *mater dolorosa* and in the Tammuz cycle the virgin mother invariably stands in this rôle. Now this indicates an ultimate connection between the two and in my judgment proves the precedence of the Tammuz cycle. The primitive mother goddess is unmarried, and the festival of wailing for the death of her son is, at any rate in Babylonia, the earliest known religious doctrine and ceremony. Daily liturgy is naturally a later development and began to be written after many types of married goddesses had been derived from the primitive virgin goddess. Liturgies sung in the cult of this married goddess although original in Isin and Telloh certainly increased in popular esteem and were incorporated in the prayer books of every city. For this reason, I dare say, every temple provided a chapel for this goddess. For it is probable that a service written for a certain cult could be sung only in the chapel dedicated to that cult. I wish we could be more dogmatic and sure about this matter but our present information is not conclusive. In any case the liturgies entirely devoted to chanting the misery and compassion of Gula and Bau form a considerable part of the corpus of every school of liturgists which we know. More duplicates and fragments of these chants turn up in various collections and in all parts of Mesopotamia than of all other cults combined. This is a sure proof of the power which the doctrines of the *mater dolorosa* had everywhere in Sumer-Akkad and Assyria.

The most well-known service of this kind has been discovered on the tablets of the Berlin Museum which, as I have said, possesses the literary remains of the cloister of Babylon. Duplicates of nearly all of the fourth and fifth tablets are now in the British Museum and come of course from the temple cloister of Nineveh. Early Sumerian duplicates are known for this as well as for many other series, duplicates we should not call them, but rather the short chants of the ancient hymnologists which formed the basis for the later compositions. The Gula liturgy to which I especially call your attention will illustrate the spiritual genius of the Babylonian people. The second tablet of the Babylonian edition begins with a passage of 62 lines introduced by the refrain *ilili ingamme* "She wails in sorrow." Here are a few lines from this section of the service:

For the children she wails in sorrow.
For the wind filled house which lapses into silence
For the city which unto the winds is surrendered.

At all points in these doleful chants the mother goddess may be introduced as the speaker:

With wailing to the lyre my abode is surrendered to strangers.
It is Enlil who turned it over to the winds (*amune Múllilli Lállada su-intur*).
My city with sorrow he has filled.
My dwelling place is destroyed, my people are desolate,
I, the queen, roam restless, no peace comes to me.

More obscure is the import of the doctrine which described the Word of various gods taking possession of the sorrowful mother goddess. Of course this idea belongs to that cycle of doctrines which make the word of the chief male deities a destructive agency. If the Word goes forth in the land punishing humanity for its sins, it naturally becomes a foe of the goddess who loves them and whose compassion never fails them. A passage from another series of this cycle has the following lines recited by Gula herself;

With the mighty word I am satiated, even I [cry aloud].
The mighty one who has given me pangs of woe.
Begetting mother am I, within the spirit I abide and none see me.
In the word of Anu I abide and none see me.
In the word of Enlil I abide and none see me.
The begetting mother who knows the sound of lament dwells among the people.

These important lines are unfortunately attended by philological difficulties which render their precise meaning uncertain. We might easily read too little or too much into this mystic relation of the Word to the sorrowful goddess. When the doctrine becomes more familiar to Assyriologists we shall probably read ingenious dissertations on this subject.

Liturgical studies in Babylonian are as you see only well underway. At the present moment our new material belongs to the Sumerian period and much of the Nippur collection is still untouched. We are, therefore, in a fair way of making rapid advances into the methods of the early hymnologists. When a reasonable amount of the classical Sumerian liturgies is published and interpreted we shall probably know the sources of every

one of the complex services of Assyria and Babylonia. It is astonishing to see how persistently the ancient passages were adhered to for 3000 years in these sacred books of public worship. Of the many chants from the services of Nippur which are known to have been borrowed by the Semites not one was changed by the Semitic schoolmen, so far as the words are concerned. And not only did the Sumerians create these chants and fix the forms of the services but they originated every great theological doctrine which the Semites themselves confessed. In the matter of public services Babylonian religion cannot be regarded as Semitic in any sense. I have no doubt but that excavations in Semitic centers such as Sippar, Ashur, Arbela, and Nineveh may yield many more texts of this kind but they, like those we already know, are sure to be composed in the sacred language of Sumer. In a measure this is unfortunate for it is gradually removing Assyriology from the discipline of Semitic studies. Like Egyptologists we shall soon be philologically estranged. Still we shall always have much in common. Only let us recognize that Babylonian religion in all its essential literary forms and doctrines is decidedly un-Semitic and we shall avoid much misunderstanding among ourselves.¹

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THE PERRY MEMORIAL

THE ONE hundredth anniversary of Perry's victory over the British fleet in Lake Erie, September 10, 1813, was the occasion of a notable celebration at which there were present the governors of Ohio, Pennsylvania, Michigan, Illinois, Wisconsin, Rhode Island, Kentucky, Minnesota, and Louisiana; General Nelson A. Miles, ex-President Taft, Dr. James A. McDonald, and many others of distinction. All the states here represented with the addition of New York have contributed liberally to the erection of a permanent memorial, which is to consist of a stone tower 300 ft. in height, flanked by appropriate buttresses and buildings for holding relics and providing offices. The tower will be mounted with a light which will be visible far off over both lake and land in every direction. The structure is already well under way and was dedicated with appropriate exercises. Perry's flagship, Niagara, which had lain for nearly a century submerged in the harbor of Erie, Pennsylvania, had been raised, and repaired, and formed one of the most attractive features of the celebration. The remains of both the American and British soldiers and sailors who were killed in the battle and had been buried on Put-in-Bay island on the shore of the bay in which Perry's fleet had made its rendezvous were transferred with appropriate religious ceremonies to their permanent resting place in the crypt under the monument.

¹ At the author's request Professor Albert T. Clay of Yale kindly read the proof of this article.

On every hand this victory is acknowledged to be one of the most significant that has ever occurred. If the British had won the victory and destroyed the American fleet Ohio, Indiana, Michigan, Illinois, Wisconsin, and all the Northwest would have been retained by them and the United States would have been limited to the eastern portion of the continent.

At the time the battle on Lake Erie was raging General William Henry Harrison was encamped with his army at Fort Seneca on the Sandusky River, 9 mi. south of the present city of Fremont, and 30 mi. from the lake shore, awaiting the results of the naval battle. It was to him that Perry's celebrated report was made, "We have met the enemy and they are ours," whereupon Harrison moved his army down to the lake shore and they were transported by Perry's fleet to the Canadian shore and soon after fought the battle of the Thames which resulted in the total rout of the British army, the death of the famous chief Techumseh, and the discouragement of the Indian allies that were coöperating with the British.

In connection with this celebration there has been widespread interest all over northwestern Ohio, incited largely by the Daughters of the American Revolution, the Colonial Dames of America, and the Daughters of 1812, to mark the sites of the military roads that were cut through the dense forests both in the year 1812 by the army of General Hull that was surrendered that year to the British in Detroit, and by that of General Harrison who retrieved the fortunes of the American army in 1813. Monuments have been erected at a great many places where these roads are known to have crossed present lines of travel, and others have been erected to mark the burial places of the many unknown soldiers who died by the way upon these expeditions.

Appropriately the theme dwelt upon most in the Put-in-Bay celebration was that it marked one hundred years of peace with England.

PEACE AGREEMENT

The naval force to be maintained upon the American Lakes by his Majesty and the government of the United States shall henceforth be confined to the following vessels on each side, that is:

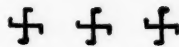
On Lake Ontario to one vessel, not exceeding 100 tons burden and armed with one 18-lb. cannon;

On the upper lakes to two vessels, not exceeding like burden, each armed with like force;

All other armed vessels on those lakes shall be forthwith dismantled, and no other vessels of war shall be there built or armed.

The naval force so to be limited shall be restricted to such service as will in no respect interfere with the proper duties of the armed vessels of the other party.

The signatories were John Quincy Adams, James Monroe, Lewis Cass, Richard Rush, and Lords Castlereagh and Bagot.



EDITORIAL NOTES

AMERICAN ANTHROPOLOGICAL ASSOCIATION AND AMERICAN FOLK-LORE SOCIETY.—The joint annual meeting of these Societies will be held in West Assembly Hall, American Museum of Natural History, New York City, December 29-31, 1913.

Titles of papers and abstracts of the same should be sent not later than December 1 to the undersigned, who is responsible for the joint program. The program will be mailed to members about the 10th of December. George Grant MacCurdy, Secretary Am. Anthr. Assoc., Yale University Museum, New Haven, Conn.

THE BABYLONIAN SISIKTU.—Dr. Alber T. Clay makes the interesting observation that the "*sisiktu* mentioned in the inscriptions of Babylonia and Assyria is in all probability to be identified with the four cords which are seen in Assyrian reliefs and Babylonian seal-cylinders hanging from beneath the tunic worn by deities and men, or suspended from the girdle. The marks made by the *sisiktu* upon clay tablets, which served as a substitute for the impression of the seal-cylinder, indicates that they were made by a knot of such a cord pressed into the clay. The significance of the *sisiktu* at present is not understood, but it is to be noted that it was regarded as a calamity when a man was deprived from wearing it.

"Although there are philological difficulties in identifying the Old Testament *sisith*, which served as a reminder of the Jewish obligations to the law, the Babylonian *sisiktu*, written *ziziktu* in the early period, is doubtless to be regarded as identical."

ANCIENT ASSYRIAN MEDICINE.—R. Campbell-Thompson, M.A., says that there are about 500 tablets or fragments of tablets unpublished in the British Museum. They relate to diseases of the head, hair, eyes, nose, ears, mouth, teeth, stomach, and other organs; the treatment of pregnancy and difficult travail; poultices, potions, and enemas; and the assuaging of snake bites or scorpion stings. The drugs in use can be numbered by the score. Several have already long been satisfactorily identified. I believe that I have been able to identify two narcotics, one, the 'Heart-plant,' as one of the *Hyoscyami*, some years previously; the other as the mandrake, to be used in allaying headache by continuous applications to the head and neck.

"In the tablets relating to eye diseases, the *lish-a-bar* is a drug of fairly common occurrence, and from its connection with the mineral *a-bar* (probably antimony) I see in it the well-known stibium used by Orientals. Another mineral in use for eye troubles is copper dust, in which we may see the forerunner of the more modern sulphate of copper."

A ROMAN COIN FROM ONE OF THE MOUNDS IN ILLINOIS.—Early in the year a Roman coin $\frac{3}{4}$ in. in diameter, was reported as discovered in one of the mounds in Illinois and was submitted to Alfred Emerson, Ph.D.

of the Art Institute of Chicago. As he has been misquoted in the press we take pleasure in printing a portion of his letter to us regarding this coin.

EDITOR RECORDS OF THE PAST, Washington.

Dear Sir: The indications are that the coin is of the rare mintage of Domitius Domitianus, emperor in Egypt. As to its discovery in an Illinois mound the responsibility for that lies with the discoverer and owner. For my part I consider the find to show that the mound was either posterior to white ranging of this continent, or that the coin reached the mound after its erection. Having expressed myself pretty clearly in this sense to reporters I was not surprised to be quoted as an illustrious person holding the opposite view. . . . It will be a pleasure to clear myself of the foolishness imputed to me by these irresponsibles by a short notice in RECORDS OF THE PAST.

[Signed] A. EMERSON.

COMPLETION OF THE PEABODY MUSEUM.—On May 28, 1913, the sod was turned for the foundations of the last section of the Peabody Museum, Cambridge, Mass., that will join it to the University Museum. The address was by Prof. F. W. Putnam, who assisted in breaking ground for the first section 54 years ago. Owing to his absence through illness, this paper was read, in the Peabody Museum, by Dr. Charles Peabody. A considerable company listened to the reading, and proceeded afterwards to the southwest corner of the open space between the Peabody section and the Geological section of the University Museum. Here President Lowell with a spade cut out a sod, which was lifted and placed on a wheelbarrow by Mrs. H. L. Higginson, a daughter of Prof. Louis Agassiz. After that, Messrs. George and Max Agassiz, with Dr. Charles Peabody, Mr. C. C. Willoughby, and other officers of the different sections of the Museum lifted sods and placed them in the wheelbarrow, Professor Putnam being represented by his son Eben and his daughter Alice, thus following out the plans made by Prof. Louis Agassiz for the cutting of the first sod of the Museum building. A small column of earth adjoining the spot where the sod was cut was left standing in the excavation so that Professor Putnam might actually take part in the removal of the last sod. On June 21 Professor Putnam, Mrs. Putnam and Miss Putnam, Mr. Samuel Henshaw, Director of the Museum of Comparative Zoölogy, Dr. C. Peabody and his son Alfred, with Mr. Willoughby and Mr. Guernsey, officers of the Peabody Museum, took up this sod and removed the column of earth from the excavation.

ENVIRONMENT AND RELIGIOUS IDEAS IN NORTHERN ASIA.—Miss M. A. Czaplicka in discussing the influence of environment upon the religious ideas and practices of the aborigines of Northern Asia, says: "In Northern Asia or Siberia there are two main types of geographical environment, with corresponding variations in the forms of *shamanism* observed there. These types may be termed northern and southern.

"1. Along the whole northern section, a boundless lowland zone, consisting of tundra, where fishing and hunting can be carried on in summer

only, and reindeer-breeding is scarcely possible, owing to deficient vegetation, the people live for nine months of the year in underground or half-underground houses.

"2. Farther south the land rises to the Siberian highlands. Here the inhabitants of the steppes lead an open-air, nomadic, pastoral or hunting life. The climate is 'Continental.'

"I. In the north we see the influence of darkness, cold and scarcity of food on the religious ideas of the people. There is a religious dualism, but the worship of 'black' spirits prevails. Family shamanism is more important than professional shamanism, since the environment does not encourage social aggregation. The animals on which the people's livelihood depends are the object of cult, inanimate objects of worship being generally symbols of them. There is no clear idea of an anthropomorphic god; the distinction between men and animals disappears in myths and in representations of superior beings. Ceremonials are almost exclusively seasonal, and are connected with the food supply and with the expulsion of the bad spirits.

"II. In the south we find a religious dualism in which the 'white' element prevails. Life amid open country and mountains has led to worship of the sky and heavenly bodies. Animals are respected but not worshipped. In the mythology it is the man that plays an heroic part. Comparative abundance of food permits certain spontaneous ceremonial expressions of religious feeling not necessarily connected with the food supply. The shaman is a professional. Bloody sacrifices predominate in the south. The *ongon* is not merely a fetish, but the image of a god." *Man*. London.

